

1131-0420



OIPE

#2

RAW SEQUENCE LISTING DATE: 02/14/2002
PATENT APPLICATION: US/10/010,408 TIME: 19:09:10

Input Set : N:\CrF3\RULE60\10010408.txt
Output Set: N:\CRF3\02142002\J010408.raw

SEQUENCE LISTING

ENTERED

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/010,408

DATE: 02/14/2002
TIME: 19:09:10

Input Set : N:\Crf3\RULE60\10010408.txt
Output Set: N:\CRF3\02142002\J010408.raw

65 (B) LOCATION: 249..1001
 68 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
 70 GACGCTTCTG ATCTCCAGAG GACCCTGGGG TGGGACAGGG GCCTTGGCAA GGCTGCAGCC 60
 72 GCTGGGCAGT GGCTTGAAT GGAGGTCTTT ATTACTGGGA ACTGAGGAGC TAAGAGGCTC 120
 74 CTGTCAGCTT CTCCTAAAGT CTTAGCACTT GTGGTGGCTT GGGCTTCACA CACTGTCAGA 180
 76 CACCTTCGTG GTGGCCTCCA CGGCCTCAC CTCAGGTTTG AAGCTGGCTC CACAAGGGAC 240
 78 ACGGTGAC ATG AGG GGC AGC CCA CTG ATC CAT CTT CTG GCC ACT TCC TTC 290
 79 Met Arg Gly Ser Pro Leu Ile His Leu Leu Ala Thr Ser Phe
 80 1 5 10
 82 CTC TGC CTT CTC TCA ATG GTG TGT GCC CAG CTG TGC CGG ACA CCC TGT 338
 83 Leu Cys Leu Leu Ser Met Val Cys Ala Gln Leu Cys Arg Thr Pro Cys
 84 15 20 25 30
 86 ACC TGT CCT TGG ACA CCA CCC CAG TGC CCA CAG GGG GTA CCC CTG GTG 386
 87 Thr Cys Pro Trp Thr Pro Pro Gln Cys Pro Gln Gly Val Pro Leu Val
 88 35 40 45
 90 CTG GAT GGC TGT GGC TGC TGT AAA GTG TGT GCA CGG AGG CTG GGG GAG 434
 91 Leu Asp Gly Cys Gly Cys Lys Val Cys Ala Arg Arg Leu Gly Glu
 92 50 55 60
 94 TCC TGC GAC CAC CTG CAT GTC TGC GAC CCC AGC CAG GGC CTG GTT TGT 482
 95 Ser Cys Asp His Leu His Val Cys Asp Pro Ser Gln Gly Leu Val Cys
 96 65 70 75
 98 CAG CCT GGG GCA GGC CCT GGC GGC CAT GGG GCT GTG TGT CTC TTG GAT 530
 99 Gln Pro Gly Ala Gly Pro Gly His Gly Ala Val Cys Leu Leu Asp
 100 80 85 90
 102 GAG GAT GAC GGT AGC TGT GAG GTG AAT GGC CGC AGG TAC CTG GAT GGA 578
 103 Glu Asp Asp Gly Ser Cys Glu Val Asn Gly Arg Arg Tyr Leu Asp Gly
 104 95 100 105 110
 106 GAG ACC TTT AAA CCC AAT TGC AGG GTC CTG TGC CGC TGT GAT GAC GGT 626
 107 Glu Thr Phe Lys Pro Asn Cys Arg Val Leu Cys Arg Cys Asp Asp Gly
 108 115 120 125
 110 GGC TTC ACC TGC CTG CCG CTG TGC AGT GAG GAT GTG CGG CTG CCC AGC 674
 111 Gly Phe Thr Cys Leu Pro Leu Cys Ser Glu Asp Val Arg Leu Pro Ser
 112 130 135 140
 114 TGG GAC TGC CCA CGC CCC AAG AGA ATA CAG GTG CCA GGA AAG TGC TGC 722
 115 Trp Asp Cys Pro Arg Pro Lys Arg Ile Gln Val Pro Gly Lys Cys Cys
 116 145 150 155
 118 CCC GAG TGG GTA TGT GAC CAG GGA GTG ACA CCG GCG ATC CAG CGC TCC 770
 119 Pro Glu Trp Val Cys Asp Gln Gly Val Thr Pro Ala Ile Gln Arg Ser
 120 160 165 170
 122 ACG GCG CAA GGA CAC CAA CTT TCT GCC CTT GTC ACT CCT GCC TCT GCT 818
 123 Thr Ala Gln Gly His Gln Leu Ser Ala Leu Val Thr Pro Ala Ser Ala
 124 175 180 185 190
 126 GAT GCT CCT TGT CCA AAT TGG AGC ACA GCC TGG GGC CCC TGC TCA ACC 866
 127 Asp Ala Pro Cys Pro Asn Trp Ser Thr Ala Trp Gly Pro Cys Ser Thr
 128 195 200 205
 130 ACC TGT GGG CTG GGC ATA GCC ACC CGA GTG TCC AAC CAG AAC CGA TTC 914
 131 Thr Cys Gly Leu Gly Ile Ala Thr Arg Val Ser Asn Gln Asn Arg Phe
 132 210 215 220
 134 TGC CAA CTG GAG ATC CAA CGC CGC CTG TGT CCC AGA CCC TGC CTG 962

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/010,408

DATE: 02/14/2002
TIME: 19:09:10

Input Set : N:\Crf3\RULE60\10010408.txt
Output Set: N:\CRF3\02142002\J010408.raw

135	Cys	Gln	Leu	Glu	Ile	Gln	Arg	Arg	Leu	Cys	Leu	Pro	Arg	Pro	Cys	Leu
136	225				230				235							
138	GCA	GCC	AGG	AGC	CAC	AGC	TCA	TGG	AAC	AGT	GCT	TTC	TAAGGCCAAC			1008
139	Ala	Ala	Arg	Ser	His	Ser	Ser	Trp	Asn	Ser	Ala	Phe				
140	240				245				250							
142	TGGGGATGCG	GATA	CAGGGC	CTGCC	CATCCT	CAGCAA	ATGA	CCCTAGGACC	AGGCC	CTGGGA						1068
144	CTGCTGGTAG	ATG	C	TCTTCT	CCATG	C	TT	GGCTGCAG	TT	AACTGT	CCTG	CTTG	GATTCA			1128
146	CTGTGTAGAG	CCACT	GAGCG	ATCC	CTGCTC	TGTCTGAG	G	AGGCGGAGCA	GGT	GACCAGC						1188
148	TCCAGTTCTC	TGG	TTCA	GAGCC	TGGA	ATTCTG	GGT	TCTC	CTG	GCTCAT	TCC	CAAAC	ATCC			1248
150	CTGTACAAAAA	AGG	ACAACCA	AAAAGAC	CTT	TAAAC	CTAGG	CTATA	ACTGGG	CAAAC	CTGGC					1308
152	CACCGTGCTG	GGG	ATAAGGT	CAATG	TAGG	ACCAGA	CAGC	AGATTG	CCTG	AAAC	TTCCAA					1368
154	TTCCCTTCTT	GGACT	CTCTGT	ATG	CTTG	TCC	CCAA	AGATGA	TGA	TGA	ATGACT	CGT	AAAGTGT			1428
156	CCTTCCCTGA	CCT	GAGAAC	CCCT	GCCTG	TCG	GGGA	AGTA	TTC	CAGGG	GCA	GAATT	CTCTG			1488
158	TGAACATGAA	GAG	ATGAA	TC	AC	ACTG	CCT	TAAG	AAATTC	CTG	AAAGT	CC	AGGA	ACTTGA		1548
160	GCTTTGTATT	TTC	AGGA	ATG	CAC	ATCT	C	AAG	CACTCGC	AAA	ACAGGAA	GG	CTCC	CACAC		1608
162	CTCTGGCAGG	CCAG	GGC	CTT	TCT	TCAGC	ATG	GAA	AGA	CAAGG	GACAG	CAG	AGT	ACTC		1668
164	TCCTCTGGAG	GACT	AGT	CTA	GC	CTAGA	AATA	AA	ACAC	CCAAA						1708

167 (2) INFORMATION FOR SEQ ID NO: 2:

169 (i) SEQUENCE CHARACTERISTICS:

170	(A)	LENGTH:	250	amino acids
171	(B)	TYPE:	amino acid	
172	(D)	TOPOLOGY:	linear	

174 (ii) MOLECULE TYPE: protein

176 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

178	Met	Arg	Gly	Ser	Pro	Leu	Ile	His	Leu	Leu	Ala	Thr	Ser	Phe	Leu	Cys
179	1				5				10							15
181	Leu	Leu	Ser	Met	Val	Cys	Ala	Gln	Leu	Cys	Arg	Thr	Pro	Cys	Thr	Cys
182				20					25							30
184	Pro	Trp	Thr	Pro	Pro	Gln	Cys	Pro	Gln	Gly	Val	Pro	Leu	Val	Leu	Asp
185		35						40								45
187	Gly	Cys	Gly	Cys	Cys	Lys	Val	Cys	Ala	Arg	Arg	Leu	Gly	Glu	Ser	Cys
188						50		55								60
190	Asp	His	Leu	His	Val	Cys	Asp	Pro	Ser	Gln	Gly	Leu	Val	Cys	Gln	Pro
191		65				70				75						80
193	Gly	Ala	Gly	Pro	Gly	Gly	His	Gly	Ala	Val	Cys	Leu	Leu	Asp	Glu	Asp
194							85			90						95
196	Asp	Gly	Ser	Cys	Glu	Val	Asn	Gly	Arg	Arg	Tyr	Leu	Asp	Gly	Glu	Thr
197						100		105								110
199	Phe	Lys	Pro	Asn	Cys	Arg	Val	Leu	Cys	Arg	Cys	Asp	Asp	Gly	Gly	Phe
200						115		120								125
202	Thr	Cys	Leu	Pro	Leu	Cys	Ser	Glu	Asp	Val	Arg	Leu	Pro	Ser	Trp	Asp
203						130		135								140
205	Cys	Pro	Arg	Pro	Lys	Arg	Ile	Gln	Val	Pro	Gly	Lys	Cys	Cys	Pro	Glu
206		145				150				155						160
208	Trp	Val	Cys	Asp	Gln	Gly	Val	Thr	Pro	Ala	Ile	Gln	Arg	Ser	Thr	Ala
209						165				170						175
211	Gln	Gly	His	Gln	Leu	Ser	Ala	Leu	Val	Thr	Pro	Ala	Ser	Ala	Asp	Ala
212						180			185							190
214	Pro	Cys	Pro	Asn	Trp	Ser	Thr	Ala	Trp	Gly	Pro	Cys	Ser	Thr	Thr	Cys

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/010,408

DATE: 02/14/2002
TIME: 19:09:10

Input Set : N:\Crf3\RULE60\10010408.txt
Output Set: N:\CRF3\02142002\J010408.raw

215 195 200 205
217 Gly Leu Gly Ile Ala Thr Arg Val Ser Asn Gln Asn Arg Phe Cys Gln
218 210 215 220
220 Leu Glu Ile Gln Arg Arg Leu Cys Leu Pro Arg Pro Cys Leu Ala Ala
221 225 230 235 240
223 Arg Ser His Ser Ser Trp Asn Ser Ala Phe
224 245 250

225 (2) INFORMATION FOR SEQ ID NO: 3:

227 (i) SEQUENCE CHARACTERISTICS:
228 (A) LENGTH: 753 base pairs
229 (B) TYPE: nucleic acid
230 (C) STRANDEDNESS: single
231 (D) TOPOLOGY: linear

233 (ii) MOLECULE TYPE: cDNA

236 (ix) FEATURE:

237 (A) NAME/KEY: CDS

238 (B) LOCATION: 1..750

241 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

243 ATG AGG GGC AGC CCA CTG ATC CAT CTT CTG GCC ACT TCC TTC CTC TGC	48
244 Met Arg Gly Ser Pro Leu Ile His Leu Leu Ala Thr Ser Phe Leu Cys	
245 1 5 10 15	
247 CTT CTC TCA ATG GTG TGT GCC CAG CTG TGC CGG ACA CCC TGT ACC TGT	96
248 Leu Leu Ser Met Val Cys Ala Gln Leu Cys Arg Thr Pro Cys Thr Cys	
249 20 25 30	
251 CCT TGG ACA CCA CCC CAG TGC CCA CAG GGG GTA CCC CTG GTG CTG GAT	144
252 Pro Trp Thr Pro Pro Gln Cys Pro Gln Gly Val Pro Leu Val Leu Asp	
253 35 40 45	
255 GGC TGT GGC TGC TGT AAA GTG TGT GCA CGG AGG CTG GGG GAG TCC TGC	192
256 Gly Cys Gly Cys Cys Lys Val Cys Ala Arg Arg Leu Gly Glu Ser Cys	
257 50 55 60	
259 GAC CAC CTG CAT GTC TGC GAC CCC AGC CAG GGC CTG GTT TGT CAG CCT	240
260 Asp His Leu His Val Cys Asp Pro Ser Gln Gly Leu Val Cys Gln Pro	
261 65 70 75 80	
263 GGG GCA GGC CCT GGC CAT GGG GCT GTG TGT CTC TTG GAT GAG GAT	288
264 Gly Ala Gly Pro Gly Gly His Gly Ala Val Cys Leu Leu Asp Glu Asp	
265 85 90 95	
267 GAC GGT AGC TGT GAG GTG AAT GGC CGC AGG TAC CTG GAT GGA GAG ACC	336
268 Asp Gly Ser Cys Glu Val Asn Gly Arg Arg Tyr Leu Asp Gly Glu Thr	
269 100 105 110	
271 TTT AAA CCC AAT TGC AGG GTC CTG TGC CGC TGT GAT GAC GGT GGC TTC	384
272 Phe Lys Pro Asn Cys Arg Val Leu Cys Arg Cys Asp Asp Gly Gly Phe	
273 115 120 125	
275 ACC TGC CTG CCG CTG TGC AGT GAG GAT GTG CGG CTG CCC AGC TGG GAC	432
276 Thr Cys Leu Pro Leu Cys Ser Glu Asp Val Arg Leu Pro Ser Trp Asp	
277 130 135 140	
279 TGC CCA CGC CCC AAG AGA ATA CAG GTG CCA GGA AAG TGC TGC CCC GAG	480
280 Cys Pro Arg Pro Lys Arg Ile Gln Val Pro Gly Lys Cys Cys Pro Glu	
281 145 150 155 160	
283 TGG GTA TGT GAC CAG GGA GTG ACA CCG GCG ATC CAG CGC TCC ACG GCG	528

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/010,408

DATE: 02/14/2002
TIME: 19:09:10

Input Set : N:\Crf3\RULE60\10010408.txt
Output Set: N:\CRF3\02142002\J010408.raw

284	Trp Val Cys Asp Gln Gly Val Thr Pro Ala Ile Gln Arg Ser Thr Ala			
285	165	170	175	
287	CAA GGA CAC CAA CTT TCT GCC CTT GTC ACT CCT GCC TCT GCT GAT GCT	576		
288	Gln Gly His Gln Leu Ser Ala Leu Val Thr Pro Ala Ser Ala Asp Ala			
289	180	185	190	
291	CCT TGT CCA AAT TGG AGC ACA GCC TGG GGC CCC TGC TCA ACC ACC TGT	624		
292	Pro Cys Pro Asn Trp Ser Thr Ala Trp Gly Pro Cys Ser Thr Thr Cys			
293	195	200	205	
295	GGG CTG GGC ATA GCC ACC CGA GTG TCC AAC CAG AAC CGA TTC TGC CAA	672		
296	Gly Leu Gly Ile Ala Thr Arg Val Ser Asn Gln Asn Arg Phe Cys Gln			
297	210	215	220	
299	CTG GAG ATC CAA CGC CGC CTG TGT CTG CCC AGA CCC TGC CTG GCA GCC	720		
300	Leu Glu Ile Gln Arg Arg Leu Cys Leu Pro Arg Pro Cys Leu Ala Ala			
301	225	230	235	240
303	AGG AGC CAC AGC TCA TGG AAC AGT GCT TTC TAA	753		
304	Arg Ser His Ser Ser Trp Asn Ser Ala Phe			
305	245	250		
308	(2) INFORMATION FOR SEQ ID NO: 4:			
310	(i) SEQUENCE CHARACTERISTICS:			
311	(A) LENGTH: 8 amino acids			
312	(B) TYPE: amino acid			
313	(D) TOPOLOGY: linear			
315	(ii) MOLECULE TYPE: peptide			
317	(v) FRAGMENT TYPE: internal			
321	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:			
W--> 323	Gly Cys Gly Cys Cys Xaa Xaa Cys			
324	1 5			
326	(2) INFORMATION FOR SEQ ID NO: 5:			
328	(i) SEQUENCE CHARACTERISTICS:			
329	(A) LENGTH: 177 base pairs			
330	(B) TYPE: nucleic acid			
331	(C) STRANDEDNESS: single			
332	(D) TOPOLOGY: linear			
334	(ii) MOLECULE TYPE: cDNA			
337	(ix) FEATURE:			
338	(A) NAME/KEY: CDS			
339	(B) LOCATION: 1..177			
342	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:			
344	TGT GAG GTG AAT GGC CGC AGG TAC CTG GAT GGA GAG ACC TTT AAA CCC	48		
345	Cys Glu Val Asn Gly Arg Arg Tyr Leu Asp Gly Glu Thr Phe Lys Pro			
346	1 5 10 15			
348	AAT TGC AGG GTC CTG TGC CGC TGT GAT GAC GGT GGC TTC ACC TGC CTG	96		
349	Asn Cys Arg Val Leu Cys Arg Cys Asp Asp Gly Gly Phe Thr Cys Leu			
350	20 25 30			
352	CCG CTG TGC AGT GAG GAT GTG CGG CTG CCC AGC TGG GAC TGC CCA CGC	144		
353	Pro Leu Cys Ser Glu Asp Val Arg Leu Pro Ser Trp Asp Cys Pro Arg			
354	35 40 45			
356	CCC AAG AGA ATA CAG GTG CCA GGA AAG TGC TGC	177		
357	Pro Lys Arg Ile Gln Val Pro Gly Lys Cys Cys			

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/010,408

DATE: 02/14/2002
TIME: 19:09:11

Input Set : N:\Crf3\RULE60\10010408.txt
Output Set: N:\CRF3\02142002\J010408.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:399 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7